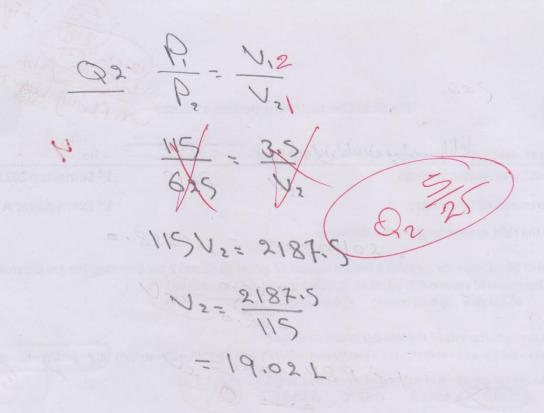




	Physical Chemistry-Properties of Gase	PS TO ANDONASA
Name of a student		No. 4
University of Mustansiriyah		1 st Semester-2021
Department of Che	mistry	1 st Exam-paper A
Q1: Circle the right answer	for all of the following:	
to another vessel of volu	ty contains a certain amount of gas at 40 °C and 2 me 100 mL at 40 °C. What should be it is pressure? b) 0.85 mmHg c) 0.9 cmHg d) 1 bar	bar pressure. The gas is transferred
	a of the Van der Waals equation? $n(a^2/V^2)$ b) $P = [nRT/(V-nb)] - V(n^2/a^2)$ c) $p = [nRT/(b-nV)]$	$-a(n^2/V^2)$ d) $P = [nRT/(V-nb)] - a(n^2/V^2)$
3: Calculate the temperature Answer: (a) 50/3 °C	re of 4.0 mol of a gas occupying 5.0 dm ³ at 3.3 bar? b) 48 K c) 51 °C d) 50.3 K	515
4: Calculate the weight of O ₂ (32 g.mol ⁻¹) in a 4 L cylinder at 9 atm and 281 K.		
Answer: a) 50 kg (b) 5		40
5: Calculate the pc of He ga Answer: a) 2.26 K b)	s, if the p _r and p is 0.44 and 1 atm respectively	(2,50)
Answer: a) real b) nobl	e negligible, that means the gas is? e c) perfect d) compressed	e in Var a Vita
	law total mole fraction is equal to? 1.0 mol c) 0.10 d) 1.0	
8: What is the partial pressure. Answer: a) 1.5 Pa	ure of a gas in a mixture if the X _i is 0.5, and the conc b) 0.49 bar c) 0.5 atm d) 0.5 bar	litions are at STP?
	en the unit of temperature is? Celsius c) Fahrenheit d) no one of	these 5/5
10: According to the Avogac Answer: a) 1.00 mol b)	dro's law the amount of a gas at STP is? 2.00 mol c) 1.00 L d) 2.00 mol	

Q2: The air inside a flexible 3.5 L container has a pressure of 115 kPa. What should the volume of the container be increased to in order to decrease the pressure to 625 torr?

Q3: A 3 dm 3 container holds 0.5 moles of N $_2$ gas at 42 $^{\circ}$ C. What is the pressure inside the container?



Q3 PV= NRT

PA3L *V = 0.5 mol * 0.082 mol L Atm. k * 315 k

V = 0.5 mol * 0.082 mol Watm. k * 315 k

0.03 L

1 = 430.5 Ath. Q3 525